

IN THE CLAIMS

The following is a complete listing of claims including amendments thereto that replaces all previous listings of claims in this application.

1. (currently amended) A rotor for a combine harvester, wherein the rotor, in use, is mounted to rotate within a housing defined within the combine harvester, the rotor comprising:

an elongate body extending from a front portion, over which crop material passes when the crop material enters the housing, to a rear portion over which the crop material passes when the crop material is being expelled out of a rear of the housing;

a threshing portion extending along a first portion of a length of the elongate body of the rotor between the front portion and the rear portion, the threshing portion having a plurality of thresher elements connected thereto for threshing crop material; [[and]]

a driver portion extending along a second portion of the length of the elongate body of the rotor between

the threshing portion and the rear of the housing, the driver portion having a driver element connected thereto, the driver element being in a form of at least one helical element that extends outwardly from the elongate body of the rotor and spirals around the rotor a plurality of times along the driver portion from adjacent the threshing portion and toward the rear portion of the housing, the driver element, in use, driving the threshed crop material rearwardly from the threshing portion towards the rear of the housing; and

wherein a diameter of the driver portion of the rotor
being smaller than a diameter of the threshing portion
of the rotor.

2. (previously presented) A rotor for a combine harvester according to claim 1 wherein the driver element is a continuous helical element.

3. (previously presented) A rotor for a combine harvester according to claim 1 wherein an impeller blade is mounted to the front portion of the rotor for facilitating entry of the crop

material into the housing which is generally cylindrical.

4. (previously presented) A rotor for a combine harvester according to claim 1 wherein a plurality of pins are attached to the driver portion of the rotor to drive the threshed material rearwardly through the housing and to separate the threshed crop material from chaff.

5. (original) A rotor for a combine harvester according to claim 1 wherein the length of the threshing portion is between approximately 0.9 m and 1.3 m and the length of the driver portion is between approximately 0.9 m and 1.3 m.

6. (previously presented) A rotor for a combine harvester according to claim 1 wherein a plurality of kicker plates are connected to the rear portion of the rotor for discharging chaff out of the rear of the housing.

7. (previously presented) A rotor for a combine harvester according to claim 1 wherein the driver element is in a form of helical sections.

8. (canceled)

9. (currently amended) A combine harvester including a reaping assembly for cutting crop material, a feeder for feeding cut crop material from the reaping assembly to a threshing assembly, the threshing assembly including a rotor mounted to rotate within a housing defined within the combine harvester, the rotor including an elongate body extending from a front portion, over which crop material passes when the crop material enters the housing, to a rear portion over which the crop material passes when the crop material is being expelled out of a rear of the housing, a threshing portion extending along a first portion of a length of the elongate body of the rotor between the front portion and the rear portion, the threshing portion having a plurality of thresher elements connected thereto for threshing crop material, a driver portion extending along a second portion of the of the rotor between the threshing portion and the rear housing, the driver portion having a driver element connected thereto, the driver element being in a form of at least one helical element that extends outwardly from the elongate body of the rotor and spirals around the rotor a plurality of times along the driver portion from adjacent the threshing portion and toward the rear portion of the housing, the driver element, in use, driving the threshed crop material rearwardly from the threshing portion towards the rear of the housing, and a diameter of the driver

portion of the rotor being smaller than a diameter of the threshing portion of the rotor.

10. (cancelled)

11. (new) A rotor for a combine harvester, wherein the rotor, in use, is mounted to rotate within a housing defined within the combine harvester, the rotor comprising:

an elongate body extending from a front portion, over which crop material passes when the crop material enters the housing, to a rear portion over which the crop material passes when the crop material is being expelled out of a rear of the housing;

a threshing portion extending along a first portion of a length of the elongate body of the rotor between the front portion and the rear portion, the threshing portion having a plurality of thresher elements connected thereto for threshing crop material;

a driver portion extending along a second portion of the length of the elongate body of the rotor between

the threshing portion and the rear of the housing, the driver portion having a driver element connected thereto, the driver element being in a form of at least one helical element that extends outwardly from the elongate body of the rotor and spirals around the rotor a plurality of times along the driver portion from adjacent the threshing portion and toward the rear portion of the housing, the driver element, in use, driving the threshed crop material rearwardly from the threshing portion towards the rear of the housing; and wherein a plurality of pins are attached to the driver portion of the rotor to drive the threshed material rearwardly through the housing and to separate the threshed crop material from chaff.